



PILLARS 2 & 3  
SUSTAINABLE  
OPERATIONS &  
VALUE CHAINS

# 6

## CLIMATE CHANGE & AIR QUALITY

### STANDARD



#### Commitment

Rapidly reduce greenhouse gas emissions, aligning to a 1.5°C world, and mitigate air pollution throughout the company’s operations and value chain.

Livestock.  
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Climate change<sup>a</sup> is a critical and urgent threat to all nations and all people. The consequences of climate change, including economic disruptions,<sup>1</sup> weather pattern changes, sea-level rise, and extreme weather events (i.e., droughts, floods, etc.), are already experienced globally and are predicted to increase in frequency and severity.<sup>2</sup> All of these ramifications significantly threaten the food and agricultural sector and global food security overall.

a. Climate change in this standard refers specifically to anthropogenic (i.e., human-induced) changes in global temperature and weather patterns. (Source: IPCC, “Summary for Policymakers,” in *Special Report: Global Warming of 1.5°C*, 2018, <https://www.ipcc.ch/sr15/chapter/spm/>.)

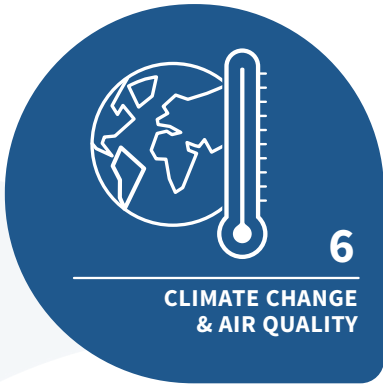


However, food production is not only affected by climate change but also contributes heavily to its intensification. The global food system is responsible for more than a third of total GHG emissions, and the aggregate carbon footprint of food production has increased by more than 12% in the last three decades.<sup>3</sup> The primary sources of GHG emissions from the food and agriculture sector come from the following:

- **Land-based production:** The most significant contribution of food production (39%) to GHG emissions stems from “on-farm” production activities, including use of synthetic fertilizer, livestock, manure management, operation of farm machinery and equipment (i.e., use of fossil fuels), rice cultivation, and burning of crop residues.<sup>4</sup> Importantly, agriculture is responsible for disproportionately large amounts of the most potent and long-lived greenhouse gasses, including methane and nitrous oxide,<sup>5</sup> which have, respectively, more than 20 times and 300 times the global warming potential of carbon.<sup>6</sup>
- **Land use change:** The expansion and intensification of agriculture have disrupted natural carbon sinks, including forests and peatlands. Approximately 32% of the food sector’s total GHG emissions are attributable to deforestation and soil disturbances.<sup>7</sup> Conserving soils, restoring forests, and limiting the expansion of agriculture’s footprint are crucial steps in achieving net-zero emissions for the food sector because these serve as vital sources of CO<sub>2</sub> sequestration and absorption.
- **Transport, processing, & retail:** Fossil fuels supply the vast majority of the energy demand within the value chains of food companies in the phases that follow cultivation and harvesting. Energy is required for transport to processing and retail facilities (i.e., fuel for shipping vehicles), processing, refrigeration, and packaging.<sup>8</sup> There are also overhead energy demands for heating, cooling, lighting, and other building or operational activities.
- **Food loss & waste:** One-quarter of calories produced annually are either lost before reaching the retail level or wasted at the retail or consumer levels.<sup>9</sup> When food decomposes, methane and other potent GHGs are released, contributing an estimated 24% of the food sector’s total emissions.<sup>10</sup>

Food production is also responsible for other forms of pollution that negatively affect environmental and human health. The concentration of livestock and their wastes, use of synthetic fertilizers and pesticides, tillage, field burning, combustion of fuels, inefficient or “dirty” transportation (i.e., smog from diesel exhaust), and machinery operation, among other practices in agriculture and food processing contribute significantly to poor air quality. Such activities release ozone, aerosols, and small particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) in various forms, including dust, nitrogen oxides, ammonia, sulfates, and other volatile organic compounds that, when chronically inhaled, have long-term adverse health effects.<sup>11</sup> In particular, air pollution is a major environmental factor associated with cancers, cardiovascular diseases, and premature mortality.<sup>12</sup> Air pollutants adversely impact livestock health and impair photosynthesis, presenting severe risks for food production and security.<sup>13</sup>

If air pollution and climate change continue to intensify, human health and food production worldwide will be severely impacted. Food companies, therefore, have a vested interest and a responsibility to align their business practices with the SDGs and rectify practices along their value chains that contribute to GHG emissions and worsening air quality.



**SDG-ALIGNMENT:** THIS STANDARD CONTRIBUTES TO ACHIEVING THE FOLLOWING SDGS:



**SDG 3 – Good health and well-being**

**Target 3.9:** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.



**SDG 7 – Affordable and clean energy**

**Target 7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix.

**Target 7.3:** By 2030, double the global rate of improvement in energy efficiency.



**SDG 9 – Industry, innovation and infrastructure**

**Target 9.4:** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.



**SDG 12 – Responsible consumption and production**

**Target 12.2:** By 2030, achieve the sustainable management and efficient use of natural resources.

**Target 12.4:** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

**Target 12.6:** Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.



**SDG 13 – Climate action**

**Target 13.1:** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

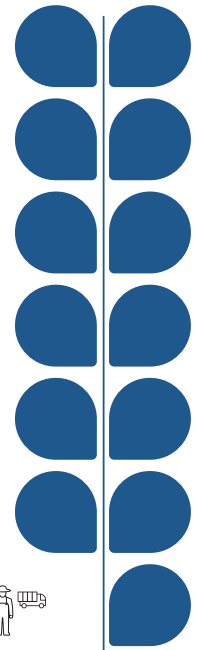
**Target 13.3:** Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.



**SDG 15 – Life on land**

**Target 15.1:** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

**Target 15.2:** By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.



SUSTAINABLE OPERATIONS  
SUSTAINABLE VALUE CHAINS



## STEPS TO MEET THE COMMITMENT

### 1. ADOPT A POLICY AND EMBED IT INTO GOVERNANCE AND MANAGEMENT SYSTEMS

#### 1.1. ADOPT A POLICY

The board or the most senior level of SDG-aligned companies adopt a policy centered on a public commitment to rapidly reduce GHG emissions in line with the Paris Agreement and the internationally-recognized human rights to food, health, water, a healthy environment, a decent standard of living, and life. This commitment is reflected in every element of company operations and business relationships. The policy:

- Aligns with the most recent climate science (i.e., UNFCCC, IPCC), including a commitment to align business practices with achieving the lowest GHG emission scenarios (i.e., SSP1-1.9 or SSP1-2.6) and pathways that limit global warming to less than 1.5°C.<sup>14</sup>
- Aligns with the *WHO Global Air Quality Guidelines* for acceptable air quality levels, best practices for managing pollutants, and reduction efforts.<sup>15</sup>
- Encompasses all products produced by the company and reflects quantitative net-zero GHG emissions ambitions for Scope 1, 2, and 3 emissions (both direct and indirect).
- Prioritizes aggressive emissions reductions followed by neutralizing remaining emissions that are hard to abate, and states that where offsets are used, they are verified and have safeguards in place to respect the rights of Indigenous communities, small-scale farmers, and local communities.

#### 1.2. EMBED THE POLICY INTO GOVERNANCE & MANAGEMENT SYSTEMS

To embed the policy, SDG-aligned companies:

- Communicate expectations for implementing the policy internally and externally to the workforce, shareholders, subsidiaries' governing bodies, and business relationships.
- Integrate the policy into contracts and other agreements with suppliers, transport and delivery partners, clients, other business relationships in the value chain, and partnerships within and beyond the food sector.<sup>16</sup>
- Use their leverage at all points along the value chain to align agricultural, transport, and production practices with the standard.
- Integrate the policy into the procurement and responsible sourcing policies.
- Integrate the policy into by-laws and other governance documents (i.e., Code of Conduct, Code of Ethics) and management procedures.<sup>17</sup>

### 2. ASSESS ACTUAL & POTENTIAL IMPACTS

SDG-aligned companies identify and assess sources of GHG emissions and air pollutants across their operations and value chains. Specifically, the companies consider both direct and indirect emissions, categorized as Scope 1, 2, or 3 emissions per *The Greenhouse Gas (GHG) Protocol*:<sup>18</sup>

- **Scope 1** covers direct emissions from owned or controlled sources, including heating and cooling systems, chemical processing, vehicles, venting, and other equipment.
- **Scope 2** covers indirect emissions from the generation of purchased electricity, heat, and steam consumed by the reporting company.
- **Scope 3** includes all other indirect emissions resulting from company and value chain activities, including emissions associated with inputs (i.e., raw ingredients), transportation of goods to and from company facilities by other actors, investments, and waste disposal.<sup>19</sup> Measuring this scope is especially important because often, most company emissions stem from sources outside of its direct control or its main revenue-generating activities.<sup>20</sup>

In order to systematically assess GHG emissions and air pollution on an ongoing basis within the company's operations and value chain, as well as establish baseline metrics, SDG-aligned companies:

- **Evaluate how business models and common business practices incentivize or facilitate energy inefficiency, excess GHG emissions, and/or air pollution.** In particular, companies assess how decisions to maximize profits or realize financial gains may be at odds with their commitment to mitigate climate change and air quality issues (e.g., bypassing efficiency upgrades or retrofits for machinery, continuing to purchase electricity from cheaper, fossil-fuel sources).
- **Employ qualified and credible experts** to aid in identifying areas of prioritization to rapidly reduce emissions and pollution.
- **Cooperate at a sector-wide and, where relevant, cross-sectoral level with governments, workers, international organizations, civil society organizations, and other stakeholders** operating on the ground to conduct the comprehensive assessments outlined below and to identify high emissions activities and areas that are at risk for air quality-related health impacts.
- **Engage with affected stakeholders and consider human rights impacts related to climate change and local air pollution,** as well as those that accompany decarbonization and offset strategies, as highlighted by 'just transition' principles.<sup>21</sup>



- **Conduct initial, regular, and ongoing comprehensive assessments of practices along the value chain that contribute to GHG emissions and air pollution.** In particular, companies assess:
  - **Energy use and sourcing for all value chain activities**, specifying sources of energy (i.e., fossil fuels, wind, solar), quantities, and estimated GHG and air pollution contributions.
  - **The efficiency of company and value chain facilities and equipment**, including whether the most energy-efficient and clean equipment models, practices, and technologies are being used. The scope of this step includes, but is not limited to all value chains:
    - Vehicles, farm machinery, and processing machinery.
    - Building fixtures, heating/cooling systems, and lighting.
    - Processing steps (e.g., heat processing, chilling, packing) and post-production steps (e.g., cleaning, gas flushing).
  - **Product lines, including conducting life cycle assessments (LCAs)** to calculate carbon footprints for each product.<sup>22</sup> SDG-aligned companies then identify “hotspots” in its product lines that may be opportunities for intervention, especially:
    - **Products comprised of a high proportion of animal-based ingredients**, especially beef, and dairy, which emit disproportional amounts of methane and are energy inefficient compared to other plant and animal-based foods.<sup>23</sup>
    - **Ingredients or final products that involve energy-intensive processes** such as blast freezing or extensive cold storage.<sup>24</sup>
    - **Products with high ‘food mile’ totals**, especially those that require specialized, energy-intensive transport such as refrigerated trucking or air freight.<sup>b</sup>
    - **Packaging** that is energy-intensive to produce (e.g., plastics) or results in deforestation.
- **Agricultural practices**, including:
  - **Deforestation, tillage, and other land-use changes** that disturb and/or remove natural carbon sinks (i.e., soil, trees, perennial grasses), releasing carbon and reducing global carbon sequestration potential.
  - **Synthetic fertilizer and pesticide use** as these agrochemicals are energy-intensive to produce (i.e., require the burning of large quantities of fossil fuels), can release potent GHGs once applied (i.e., nitrogen-based fertilizers convert readily to nitrous oxides),<sup>25</sup> and contribute significantly to air pollution through their conversion to aerosols.<sup>26</sup>
  - **Livestock production and waste management practices**,<sup>27</sup> including (1) feed compositions, additives, and efficiency; (2) grazing practices and their impact on soil integrity (i.e., degrade or enhance); (3) composting, covers, additives, digestors, or other manure management practices that impact methane and carbon emissions; (4) any feedlot, building filtration, landscaping, or dietary interventions employed to reduce dust and particulate emissions.<sup>28</sup>
  - **Rice cultivation methods** as certain methods, especially the common practice of seasonally flooding paddies, result in anaerobic bacterial production of methane.<sup>29</sup>

b. ‘Food miles’ is a term that refers to the total distance a product travels to reach its final destination; longer distances result in higher GHG emissions due to fuel consumption for transport and, if applicable, refrigeration. Companies consider food miles in the context of other trade-offs such as production emissions and transport type. For example, produce shipped by sea may have a lower carbon footprint than more local produce that requires production in heated greenhouses during colder months. (Source: Christopher L. Weber and H. Scott Matthews, “Food-Miles and the Relative Climate Impacts of Food Choices in the United States,” *Environmental Science & Technology* 42, no. 10 (2008), <https://pubs.acs.org/doi/10.1021/es702969f>.)





### 3. INTEGRATE BY SETTING TARGETS & TAKING ACTION

SDG-aligned companies integrate the findings of their comprehensive assessment of GHG emissions and air pollution outlined in Step 2 into business decisions, processes, and functions by **settings targets** and then **taking action** to align with the standard within set target dates.

#### 3.1. SET TARGETS

SDG-aligned companies set specific, time-bound near- and long-term targets to rapidly reduce GHG emissions and mitigate air pollution that are ambitious enough to contribute significantly to the SDGs' achievement and to the Paris Climate Agreement. To meet the standard and in alignment with company policy commitments outlined in Step 1:

- Near-term targets meet or exceed the 45% GHG emissions reduction from 2010 baselines by 2030 in alignment with acceptable (i.e., low emissions) IPCC trajectories. These targets are relevant for the company to monitor its continuous improvement and that of its business relationships towards meeting the standard.
- Long-term targets meet or exceed (i.e., achieve negative emissions) net-zero GHG emissions by 2050.

These targets are tailored to the business activities of the companies and are based on their assessment of actual and potential contributions to GHG emissions and air pollution. The following are some examples of performance indicators to track progress over time:

- By 2030, reduce emissions across Scopes 1, 2, and 3 by 50% from a 2019-2022 baseline.
- By 2030, reduce mean product carbon footprint by 15%.
- By 2030, source all rice from suppliers using low GHG practices (e.g., AWD).
- By 2030, source all beef from suppliers who have implemented optimal manure management practices.
- By 2030, 1% or less of agricultural expansion is a product of natural (i.e., virgin) land conversion.

#### 3.2. TAKE ACTION

Where an SDG-aligned company identifies activities in its own operations that contribute to GHG emissions and air pollution, it takes appropriate and swift action to cease, prevent, and mitigate such emissions and their impacts. Where the company identifies GHG emissions or air pollution in its value chain, it uses and increases its leverage to prevent, mitigate, and remediate these risks.

In all instances, SDG-aligned companies address emissions in a hierarchical manner, prioritizing mitigation of the most environmentally

detrimental activities in its own operations and value chain. Only once reduction options have been exhausted do they employ neutralization strategies (i.e., offsets) for remaining emissions.

Depending on assessment findings, measures to align practices with the standard could include:

- **Modifying business models** where they incentivize GHG emissions and in order to deter emissions or pollution.
- **Modifying product lines and altering product formulations** to reduce or substitute ingredients or commodities with high-GHG footprints (e.g., offering plant-based protein products,<sup>30</sup> replacing rice with other regenerative or perennial grains like sorghum or Kernza™<sup>31</sup>).
- **Reducing or, wherever possible, eliminate packaging** that is unnecessary (i.e., secondary packaging such as cardboard boxes around bags food is contained in) or that has the greatest environmental impact on emissions (i.e., plastics which create significant GHG emissions and air pollutants,<sup>32</sup> virgin paper that promotes deforestation and loss of natural carbon sinks).
- **Implementing higher technology & efficiency standards** along the value chain to reduce GHG emissions and air pollution from agriculture, deforestation, and other activities (e.g., by upgrading machinery to the most energy-efficient models; installing air filtration systems or industrial scrubbers<sup>33</sup>).
- **Transitioning to renewable energy** where it is required for on-farm production, transport, processing, and other activities along value chains. SDG-aligned companies prioritize and finance electrification and the utilization of clean and renewable energy sources (e.g., wind, solar, geothermal).
- **Using leverage among and support suppliers, producers, and other business relationships** to reduce emissions of GHGs, mitigate climate change (e.g., preserve carbon sinks), reduce air pollution, and take other measures to align with the standard. Specific areas of focus to use leverage include:
  - **Livestock production and waste management**, including optimizing:<sup>34</sup>
    - Dietary composition, digestibility, and additives that can reduce methane production and particulate matter from manure.
    - Grazing patterns to conserve soil integrity and reduce dust formation.
    - Feedlot moisture to reduce dust formation.
    - Manure management including utilizing additives, composting methods, synthetic or biocovers, aeration, and anaerobic digestors to manage GHG formation and pollutants.



- **Reducing agrochemical use and adopting agroecological and sustainable agricultural practices** outlined in the Agrochemicals and Sustainable Agriculture standard.
- **Eliminating burning of biomass**, including open-field burning of crop residues.<sup>35</sup>
- **Soil management**, including transitioning to:
  - Low or no-till practices.
  - Planting, including cover cropping with perennials and other varieties with high biosequestration potentials and that prevent soil disturbance.
- **Rice cultivation**: Transition from traditional flooding practices to mid-season draining, alternate wetting, and drying (AWD), dry seeding, or aerobic systems that continuously promote soil drainage.<sup>36</sup>
- **Farm machinery**: Optimize fuel efficiency on on-farm machinery and support suppliers and producers in transitioning, when available, to electrified models.
- **Limiting agricultural expansion & deforestation** directly or by using leverage to influence suppliers and other business relationships. SDG-aligned companies halt deforestation and ensure any already-deforested land either remain in production, is regenerated to productive capacity, or is reforested. SDG-aligned companies require adherence to this aspect of the standard through contractual terms, which can include time-bound requirements for the acquisition of climate and conservation-related certifications. However, due to large discrepancies in governance, transparency & traceability requirements, auditing schedules, and requirement stringency between certifications,<sup>37</sup> the companies do not rely solely on certifications to ensure climate change mitigation in their value chain and enforce contract terms through independent, third-party audits.
- **Building capacity among suppliers, producers, and other business relationships** to transition production practices, technologies, including those outlined above, through efforts such as:
  - **Financial incentives and benefit schemes**: Examples include the provision of:
    - Compensation for land sparing (e.g., protecting forest land)
    - Financing the purchase of equipment or installation of sustainable technologies
    - Crop insurance or direct payments for transitioning practices and varieties
  - **Provision of contractual incentives** (i.e., sourcing commitments, longer contracts) to produce perennial crops and crops with enhanced biosequestration potentials (e.g., legumes)
  - **Provision of technical support, consulting services, education, and training** to help adapt production methods
  - **Responsibly disengage from business relationships** where negative impacts on climate or excessive air pollution cannot be or are not being prevented or mitigated
  - **Offset remaining emissions with verified offsets**: Only once reduction options outlined above are exhausted, SDG-aligned companies offset remaining emissions with verifiable carbon offsets through credible organizations (i.e., offsets following the REDD+ framework or offered by the forthcoming U.S. carbon bank) which safeguard the rights of Indigenous communities, small-scale farmers, and local communities.
  - **Research & development**: Constructively participate in initiatives and invest in research & development to scale practices and drive innovation in climate change and air pollution mitigation.
  - **Multi-stakeholder initiatives**: Use leverage and join industry peers, governments, civil society organizations, international coalitions, certification schemes, and other multi-stakeholder initiatives to encourage industry-wide and food-systems wide change, policy change, and climate and air-protective action.
  - **Engage in climate policy advocacy**: Support, and do not impede, policies that contribute to global decarbonization and emissions reductions that align with the goals of the Paris Agreement<sup>38</sup> and promote a just transition.<sup>39</sup>
  - **Discretionary giving**: Voluntarily support community-led climate change and air quality initiatives at the local, national, and international levels. SDG-aligned companies, however, never utilize discretionary projects to draw public attention away from real or potential climate change or air pollution threats connected to their business practices or divert attention from damage done in other areas of their operations.



## 4. ESTABLISH AND PARTICIPATE IN EFFECTIVE GRIEVANCE MECHANISMS & PROVIDE OR ENABLE REMEDY

### 4.1. ESTABLISH GRIEVANCE MECHANISMS

SDG-aligned companies establish effective grievance mechanisms that are accessible to stakeholders to report local air pollution and related impacts (e.g., respiratory illnesses) resultant from company or value chain activities, and to report any harmful activities related to their commitment to climate change and air pollution mitigation (e.g., underreporting of emissions, continued use of inefficient machinery or fossil fuel by value chain actors despite commitments or contractual agreements not to). The grievance mechanisms evaluate violations of the standard and determine the appropriate remedy for impacts on communities and ecosystems.

### 4.2. COOPERATE IN STATE-BASED GRIEVANCE MECHANISMS

SDG-aligned companies participate in legitimate public grievance mechanisms and sanctions regimes for their involvement in harm caused. Where State-based mechanisms order sanctions or remedy, the companies comply and use leverage to ensure their business relationships comply.

### 4.3. PROVIDE OR ENABLE REMEDY

When SDG-aligned companies identify that they have, even inadvertently, caused or contributed to adverse air quality or have not upheld commitments to align with the standard across their operations and value chains, they acknowledge their part in the harm done and provide for or cooperate in their remediation through legitimate processes.

Any measures to provide, contribute to or enable remedy is designed through expert consultation and, if applicable, in partnership with those impacted by poor air quality resultant from company activities. Remedy for air quality impacts may include providing financial compensation for medical costs incurred by those afflicted with respiratory and other illnesses stemming from air quality issues attributable to company and value chain activities; funding health programs (e.g., respiratory health screenings), or indoor filtration device provision across affected communities, especially for vulnerable populations such as children and the elderly.

Remedy for the failure to implement GHG reduction measures in alignment with the standard may include actively carrying out, supporting, and financing natural ecosystem restoration (e.g., reforestation efforts) and funding climate adaptation and resilience schemes that help the most vulnerable populations prepare and respond to impacts of climate change through planning measures and infrastructure improvements. Such efforts are undertaken in collaboration with local governments and communities, including Indigenous and farmer communities.

## 5. TRACK PERFORMANCE

SDG-aligned companies track the implementation of measures to meet the standard within its target dates through qualitative and/or quantitative outcome-based performance indicators on an ongoing basis and in partnership with qualified independent professionals, suppliers, government institutions, civil society organizations, and other relevant stakeholders. The following are some examples of performance indicators to track implementation of measures to mitigate emissions and impacts on climate change impacts and air quality:

- Aggregate Scope 1, Scope 2, and Scope 3 GHG emissions, including a breakdown of significant areas or activities in the value chain that contribute to total emissions
- Percentage change in GHG emissions relative to production<sup>c</sup>
- Percentage of total energy use from renewable sources in company operations and the entire value chain
- Percentage of machinery or vehicles electrified or upgraded to the most energy-efficient models
- Over the past year, the percentage of agricultural land (1) that was stable, (2) that shifted to natural land, and (3) that grew from conversion of natural land.
- Absolute change in agricultural land area (i.e., increase or decrease in agricultural footprint)
- Total change in forest land in relevant areas that is regenerated or restored
- Trends in Soil Organic Matter (SOM), which can indicate a change in carbon sequestered in soils
- Percentage of beef sourced from suppliers who have optimized manure management practices as assessed by experts
- Percentage of total agricultural land in the value chain under no-till practices
- Percentage change in agrochemical quantity used by suppliers
- Percentage of rice suppliers who have eliminated seasonal flooding and transitioned to alternatives (e.g., AWD)
- Percentage of food that is lost along the value chain up until retail stages
- Percentage change in the average carbon footprint of product sold
- Percentage of sales from products in lowest/highest quartile of carbon footprints of the product suite

<sup>c</sup> Companies track emissions relative to their production as a complementary metric to aggregate emissions to account for the direct relationship between production and emissions; without doing so, a reduction in emissions could stem from a decrease in production rather than progress.





## 6. DISCLOSE PERFORMANCE

To enable transparency and accountability, SDG-aligned companies communicate publicly on their performance against their climate change and air quality commitment and targets, particularly when concerns are raised by or on behalf of affected stakeholders. Where relevant, SDG-aligned companies also share aggregate data and high-level findings directly with affected stakeholders and organizations, including human rights organizations and researchers.

Regular public disclosure is accurate, clear, accessible, and third-party verified information about the actual and potential impacts on climate change and air quality in their operations and value chain, their efforts to address these to implement their policy commitment, and performance against targets. Disclosure includes sufficient information to evaluate the adequacy of the company's approach and activities. Formal disclosure includes information on the following:

- **Findings of the GHG emissions and air pollution assessment**, including specific climate change and air pollution risks and impacts within its own operations and value chain.
- **Methods used to assess operations and business relationships** to identify and measure climate change and air pollution risks and impacts.
- **Measures the company took during the reporting period to prevent, mitigate, and, where possible, remedy impacts on climate change and air pollution** in its operations and value chain. This includes information on energy use and sourcing changes, equipment and machinery upgrades, sourcing, product lines, production practices, land use and occupancy, supplier capacity building, advocacy efforts, and investments.
- **Any measures undertaken in partnership with industry partners, civil society organizations, multi-stakeholder groups, governments, and other stakeholders** to address global GHG emissions, climate change, and air quality issues in the food sector or beyond (e.g., policy change advocacy, carbon sequestration schemes).
- **Progress on relevant performance indicators, even when progress is not as good as expected and the targets set are not met.** When a company fails to meet its own targets, it discloses key learnings and delineates how it is modifying its strategy and efforts to still achieve intermediate and long-term targets to minimize emissions and air pollution in its own operations and value chain and align with global emissions reductions trajectories (i.e., IPCC trajectories).
- **Any instances where air pollution or severely harmful practices regarding emissions were identified** in company operations or value chain, specifying the geographic location where the instance occurred, contributing activities and actors, the extent of damage done to the affected ecosystem and surrounding communities (if identifiable),<sup>40</sup> how the instance was identified, and steps taken to both remedy the instance and prevent further such instances from occurring.



## ENDNOTES

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